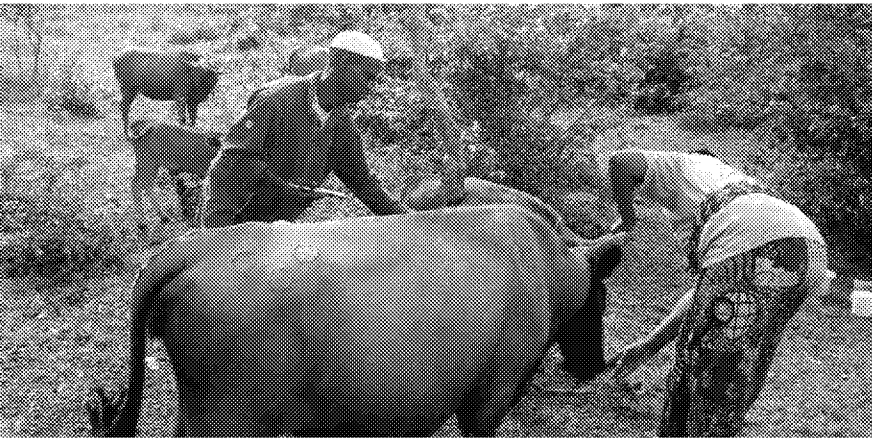




# Implementing the Global Health Security Agenda: Progress and Impact from U.S. Government Investments



February 2018

Cover photos clockwise:  
Patrick Adams/RTI; U.S. Centers for Disease Control and Prevention Division of Global Health Protection (CDC DGHP), Cote D'Ivoire; FAO Guinea  
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Page 7 photo: PREDICT, UC Davis  
Page 14 photo: Athit Perawongmtha  
Page 17 photo: PREDICT, UC Davis

# Background

Across the globe, there are many examples of new and reemerging pathogens spreading quickly, resulting in epidemics and outbreaks that can potentially overwhelm health systems and devastate economies. One hundred years ago, one of the deadliest pandemics in modern history began sickening people all over the world, including Americans. The virus, related to a strain of H1N1 influenza still active today, eventually infected a third of all people on Earth, killing up to 50 million, three times the number of lives lost during World War I. Almost a century later, the 2014 Ebola epidemic in West Africa exposed major weaknesses in country and global capabilities to address biologic threats, claimed more than 11,000 lives, and cost billions in economic losses. In 2017, there were outbreaks of pathogens that had the potential to and did spread across regions and even the entire globe. While these emerging and re-emerging threats vary in size and scope, each highlights the need for continued prevention, detection, and response to help protect the health of Americans and global populations.

An infectious disease threat anywhere can be a threat everywhere. In today's interconnected world, a pathogen can travel around the globe to major cities in as little as 36 hours.<sup>1</sup> Under the Global Health Security Agenda, the United States has invested \$1 billion to assist in building country capacities across 11 key technical areas, which has contributed to the earlier detection of infectious disease threats, prevention of avoidable outbreaks and further spread, and the rapid and effective response to new outbreaks.

Many pathogens of global health security concern are zoonotic diseases – pathogens that can be transmitted between animals and humans. Over the last 60 years, this type of pathogen accounted for more than 70 percent of emerging infectious diseases. Population growth has brought people closer to one another and closer to animal reservoirs of zoonotic pathogens, increasing the opportunity for pathogens to cross between animals and humans. Environmental changes have also altered the distribution of mosquitos and other disease vectors.

Beyond these naturally occurring outbreaks, the global health community is also working to address the concern of increasing antimicrobial resistance in pathogens that infect both humans and animals. There are also the ongoing global threats of the deliberate release of dangerous pathogens or the accidental release of a pathogen from a laboratory or other facility (e.g., the accidental release of poliovirus into the environment in 2014). The risk of biological weapon development and use will increase as related know-how and technologies become more broadly disseminated, less expensive, and easier to deploy.

The economic toll of pandemics is high. The 2002–2003 outbreak of Severe Acute Respiratory Syndrome cost the global economy an estimated \$40 billion.<sup>2</sup> The next severe pandemic could cost the world economy up to \$6 trillion.<sup>3</sup> The World Bank estimates the overall economic impact of the 2014–2016 Ebola outbreak on Guinea, Liberia, and Sierra Leone alone was \$2.8 billion.<sup>4</sup> Additionally, global health security, which relies on the capacity of all countries to detect and control health threats, is critical to the U.S. economy and jobs.<sup>5,6</sup> Strategic investments in public and animal health capacity, including public and animal health

1. Jonas, Olga B. 2013. Pandemic Risk. World Bank, Washington, DC. © World Bank. License: CC BY 3.0 IGO. <https://openknowledge.worldbank.org/handle/10986/16343>

2. <https://www.cdc.gov/dotw/sars/index.html>

3. Gostin, L.O., Mundaca-Shah, C.C., & Kelley, P.W. (2016). Neglected Dimensions of Global Security: The Global Health Risk Framework Commission. JAMA, 315(14), 1451–1452

4. <http://www.worldbank.org/en/topic/macroeconomics/publication/2014-2015-west-africa-ebola-crisis-impact-update>

5. Cassell, C.H., Bamberg, Z., Roy, K., Meltzer, M.I., Ahmed, Z., Payne, R.L., & Bunnell, R.E. (2017). Relevance of Global Health Security to the U.S. Export Economy. Health Security, 15(6):563–586.

6. Bamberg, Z., Cassell, C.H., Bunnell, R.E., Roy, K., Ahmed, Z., Payne, R.L., Meltzer, M.I. (2018). Impact of a Hypothetical Infectious Disease Outbreak on U.S. Exports and Export-based Jobs. Health Security.

## The vision of the GHSA is to achieve a world safe and secure from infectious disease threats, whether naturally occurring, accidental, or deliberately released.

systems and preparedness, need to be a national security priority of governments and a key commitment from multilateral agencies, development banks, NGOs, academia, and private sector stakeholders worldwide.

The Global Health Security Agenda (GHSA) is a multi-sectoral and multilateral effort that was launched in 2014 to accelerate progress toward compliance with the International Health Regulations (IHR) (2005), the World Organization for Animal Health's Performance of Veterinary Services, the Biological Weapons Convention, and other relevant international frameworks and agreements. The IHR (2005) is a legally binding instrument adopted by 196 WHO Member States that sets requirements for each to prepare for health emergencies of all types. The vision of the GHSA is to achieve a world safe and secure from infectious disease threats, whether naturally occurring, accidental, or deliberately released. GHSA seeks to leverage host government and donor partner investments to reduce morbidity, mortality, and economic loss by preventing avoidable infectious disease outbreaks, detecting threats early, and responding rapidly and effectively to outbreaks when they occur. GHSA advances IHR (2005) compliance by providing specific, measurable targets across the 11 technical areas, referred to as "Action Packages," and supporting step-by-step plans to promote their achievement.

It is more likely countries will miss the beginning of an outbreak and delay an effective response in the absence of health security capabilities, including: reliable,

sensitive real-time disease surveillance systems; safe, secure, and strong laboratories; a well-trained workforce; capable information systems; a command structure to coordinate an effective and focused response; and multi-sectoral collaboration. Investments in these capabilities allow for rapid identification and response to stop outbreaks of new and emerging infectious diseases quickly before they spread around the globe.

The GHSA operates through an integrated partnership that includes member nations, WHO, the World Organization for Animal Health, the Food and Agriculture Organization of the U.N. (FAO), the World Bank, INTERPOL, other international organizations, development partners, non-governmental stakeholders, and the private sector. In order to achieve global health security, all partner countries must prioritize their own domestic funding to support public and animal health system improvement with the goal of sustainability.

As of January 2018, more than 60 countries have joined the GHSA. Each member country has made a commitment to achieve GHSA targets at national, regional, and/or global levels. The United States is a member of the GHSA and the 10-country GHSA Steering Group, serving as its first Chair. The United States leads or contributes to several GHSA Action Package working groups by sharing our domestic health experiences and lessons learned with partners around the world.

President Donald Trump has emphasized the importance of the GHSA, including at the U.N. General Assembly in September 2017, by highlighting that the GHSA is one of several programs that promote better health and opportunities all over the world. In July 2017, Secretary of State Rex Tillerson stated, "The United States' commitment to working in multi-sectoral partnerships to counter infectious diseases through the Global Health Security Agenda will remain constant." In October 2017, at the GHSA Ministerial Meeting, the National Security Council Senior Director for Global Health Security and Biodefense, Rear Admiral Tim Ziemer (U.S. Navy, retired), emphasized U.S. support for GHSA going forward, by stating, "The United States believes that extending GHSA beyond 2018 will allow us to continue our collective progress toward the original vision of GHSA. We see opportunities to work together, to build on the successes, and focusing in addressing those most pressing needs in the next five years."

## U.S. Approach

The United States is committed to working with 31 countries and the Caribbean Community toward achieving GHSA targets across the 11 Action Packages, divided into a Phase I of 17 countries and Phase II of 14 additional nations. In July 2015, the United States committed to investing \$1 billion in new resources across the 17 Phase I countries to build capacity to prevent, detect, and respond to infectious disease outbreaks. As of Dec. 31, 2017, the U.S. Centers for Disease and Control and Prevention (CDC) has obligated \$453.8 million, and USAID has obligated \$245.5 million in support of this U.S. commitment to GHSA.<sup>8</sup> This funding and technical assistance have helped these countries design and implement five-year GHSA plans that address specific gaps in health security capability across the GHSA Action Packages. The United States also works with the 14 additional Phase II GHSA partner countries and the Caribbean Community to develop GHSA plans and mobilize international partner resources to advance achievement of GHSA targets.

In December 2016, the United States published its first annual report on progress and early impact from the U.S. investment in the GHSA.<sup>9</sup> Since the publication of that report, GHSA countries, with the help of U.S. and other partner investments, have continued to build capacities across each of the GHSA Action Packages. The information contained in this

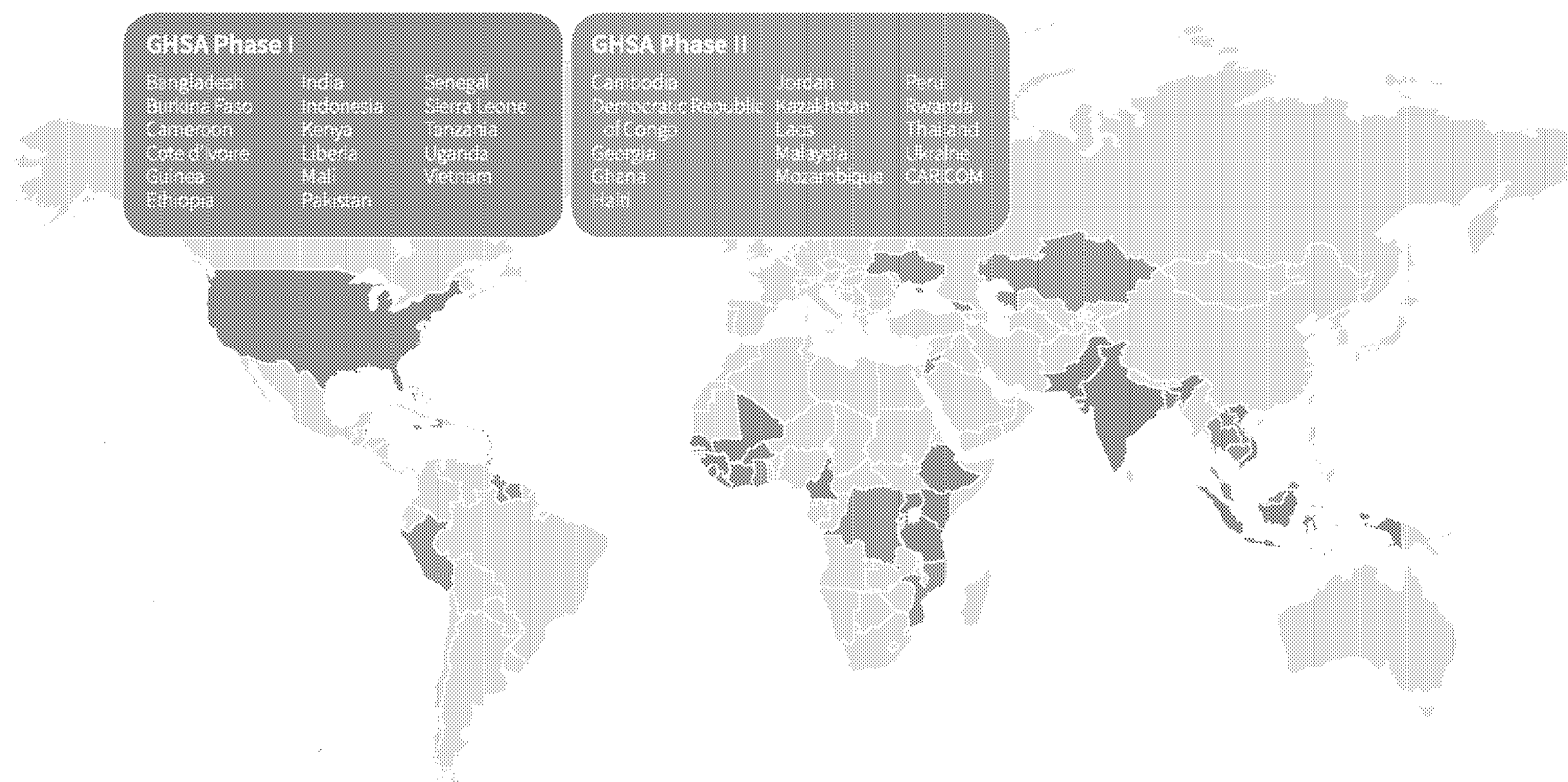
second annual report, which focuses on activities during the third year of the five-year U.S. Government GHSA commitment, highlights how these improved capacities have contributed to demonstrated impact in rapidly detecting and stopping outbreaks at their source. Within the U.S. Government, teams from the Department of State, the Department of Defense (DoD), the Department of Agriculture (USDA), the Department of Health and Human Services, including CDC, USAID, the Federal Bureau of Investigation, the National Security Council, and other departments and agencies are working within GHSA with the goal of keeping the world safe and secure from infectious disease threats.

### **The Role of Defense in Global Health Security**

Throughout much of the world, the local military has unique capabilities, including experience with logistics, command and control, and complex contingency operations, that can complement public and animal health capacities and efforts to prevent, detect, and report early outbreaks of disease. The GHSA provides a framework and umbrella under which defense departments can collaborate on threat reduction, bio-surveillance, and biosecurity objectives.

8. As of the end of fiscal year 2017, CDC had obligated \$443.3 million in support of this U.S. commitment to GHSA. This figure reflects cumulative obligations from FY2015–FY2017, net of upward and downward adjustments made prior to Oct. 19, 2017.

9. <https://www.ghsagenda.org/docs/default-source/default-document-library/ghsa-legacy-report.pdf?sfvrsn=12>



## Our Partners

Internationally, multiple donor partners support GHSA objectives, and U.S. investments have helped to leverage additional support. The G-7<sup>10</sup> leaders made a collective commitment to assist 76 countries and regions. In 2017, Australia committed approximately \$240 million over five years (2017–2022) to establish a new Health Security Initiative for the Indo-Pacific region to address rising health security threats. The Republic of Korea, through its Safe Life for All Initiative, has pledged \$100 million in 13 countries over five years, focusing on immunization, national laboratory systems, and workforce development. Nordic countries made a collective commitment to assist 10 countries. Canada provided \$20 million in 2016 to assist an additional 15 countries to fulfill commitments under the

GHSA. Spain and Italy are strengthening laboratories and training personnel in Southeast Asia. The World Bank's International Development Association 2018 replenishment establishes a scaled-up commitment to strengthen country-level health security capacity in at least 25 countries. The World Bank is also implementing the \$110 million Regional Disease Surveillance Systems Enhancement Project, which will assist countries to strengthen their disease detection systems and epidemic preparedness. In addition, Finland, Germany, the Kingdom of Saudi Arabia, and other countries, along with the Bill & Melinda Gates Foundation, are helping support the WHO's Joint External Evaluation (JEE) process to comply with the IHR (2005).

10. G7 members are the United States, Canada, France, Germany, Italy, Japan, and United Kingdom.

## Joint External Evaluations

In close coordination with the WHO, the United States, Finland, and other GHSA members and stakeholders assisted with the development and implementation of the JEE. The JEE is a voluntary, multi-sectoral external assessment process to identify gaps in capacity, determine a country's current level of health security capacity, and measure progress in a country's ability to prevent, detect, and respond to infectious diseases and other public health threats. Following a JEE, countries develop costed National Action Plans to address the gaps identified in the JEE and identify resources required; implement the national action plan; monitor progress in implementation of the plan; and repeat the external evaluation within four to five years. The JEE, which combines GHSA targets with additional core capacities required under the IHR (2005), allows countries to identify and address specific gaps within their health security systems and provides the basis for countries to engage with internal and external stakeholders to focus resources effectively, measurably, and sustainably.

As of Jan. 26, 2018, 67 countries have completed a JEE (with 50 of those published online); 31 are expected

to complete a JEE in 2018; and 12 have expressed an interest. Fifteen countries have made significant progress developing National Action Plans to address the gaps identified through their JEEs, and 10 others have plans under development. Many of the National Action Plans heavily leverage the U.S. Government GHSA plans developed earlier. In comparison, as of Nov. 30, 2016, only 25 countries had completed evaluations, and none had begun developing National Action Plans. The United States continues to support these processes through participation in JEE missions; assisting countries to develop National Action Plans; and by providing strategic and technical guidance to WHO and other international organizations.

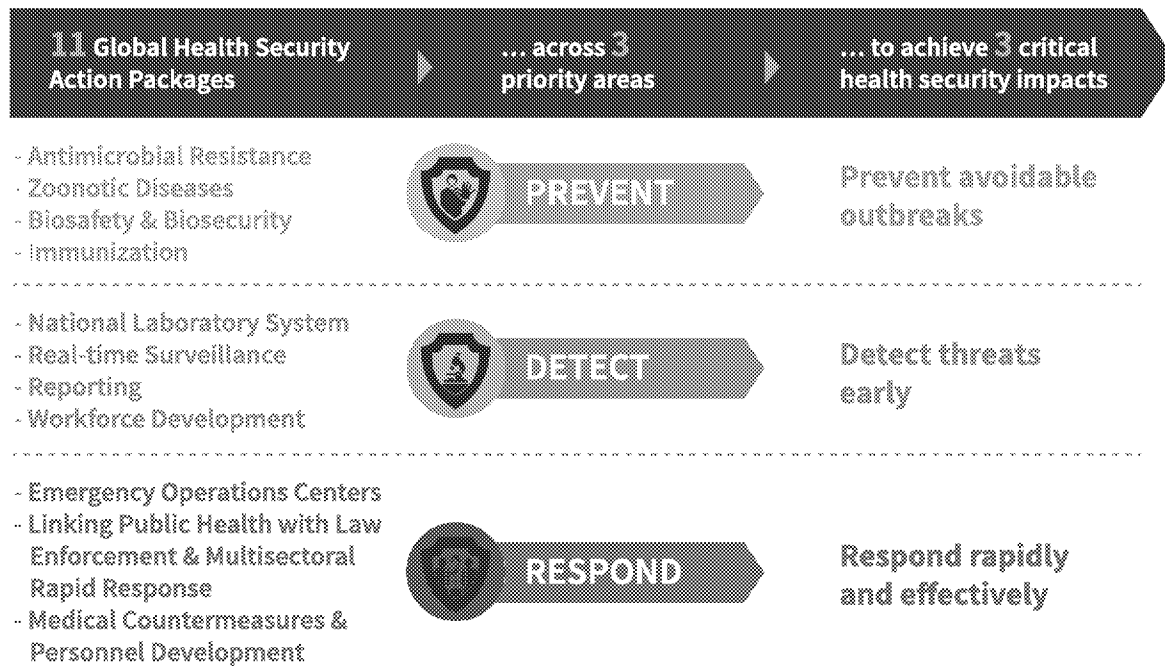
The United States completed a JEE in May 2016, and the final report was published by WHO in June of the same year.<sup>11</sup> Departments and agencies from all sectors of the U.S. Government have worked together to develop the National Action Plan to Strengthen Implementation of the IHR (2005) based on the 2016 JEE. The plan includes action items to maintain or improve upon JEE indicator scores and address the recommendations from the external evaluators.



11. <http://apps.who.int/iris/bitstream/10665/254701/1/WHO-WHE-CPI-2017.13-eng.pdf?ua=1&ua=1>

# Strategic Vision for Global Health Security

**GHSA builds capabilities across 11 specific technical areas, or Action Packages, that span multiple sectors and disciplines, including animal and human health, agriculture, and security.**



The following sections provide examples of U.S. support for GHSA implementation, including shared outcomes of our investments (what the U.S. technical and financial support coordinated with other partner investments have helped countries achieve) and evidence of impact (enhanced prevention, detection, and response to new infectious disease threats that decreases the potential for widespread disease and mortality).









## The Shared Outcomes of U.S. Government Investments in the GHSA: Building Global Health Security Capacities

As described on page 5, the JEE is a WHO-led process for the transparent, external assessment of countries' health security capacity. Each country that completes a JEE receives a score from 1 to 5 across indicators that span 19 technical areas that include the 11 GHSA Action Packages. The United States monitors GHSA country progress using the JEE scoring system. Twice per year, each U.S. embassy country health team estimates the impact of U.S. investments, coordinated with those of other partners, on the country's abilities to prevent, detect, and respond to infectious disease threats. For most indicators, gaining one level of capacity represents a significant accomplishment.

The tables on pages 8–10 capture the impact of U.S. support, coordinated with other partner investments, by describing the number of countries that have built the capacity needed to increase at least one point higher on the JEE scoring scale for technical areas related to the GHSA Action Packages. Representative examples of the progress achieved are in the fourth column.

# PREVENT

| Action Package  | Toward These Targets   | Number of Phase I Countries with Capacity-level increase over Baseline* | Examples of Implementation that Benefited from U.S. GHSA Assistance  |
|---|--|---|--|
|  Antimicrobial Resistance (AMR) | Prevent the spread of drug-resistant pathogens with a strong plan and maintain capacity for detecting AMR and controlling infections | 8   | <p>In Guinea, Liberia, and Sierra Leone, about 38,000 health care workers, community health agents, and other staff who come in contact with patients were trained in infection prevention and control (IPC) standards and practices. In Sierra Leone alone, 303 health facilities received training and mentoring to improve IPC and prevent the spread of AMR.</p> <p>In India, hospital staff strengthened their ability to detect and prevent the spread of antimicrobial-resistant infections, including through conducting outbreak investigations, laboratory-based detection of emerging pathogens, and improving isolation and transmission-based precautions.</p> <p>Kenya established a multi-sectoral zoonotic surveillance system for rabies, Rift Valley fever, and anthrax.</p> |
|  Zoonotic Disease               | Reduce the emergence and spread of infectious diseases from animals to humans  | 9   | <p>In Uganda, a district animal health lab confirmed an anthrax outbreak in goats and cattle, which helped to contain a resulting human outbreak.</p> <p>The Cote d'Ivoire animal health laboratory network shortened the time for detecting cases of avian influenza from three months to two to six days.</p>  |
|  Biosafety & Biosecurity       | Prevent pathogens from being accidentally or deliberately released by building comprehensive biosafety and biosecurity systems       | 7   | <p>In Burkina Faso, lab staff in 10 priority labs that work with dangerous pathogens were trained in biosafety and biosecurity, and 25 veterinary lab technicians completed capacity building in biosafety and biosecurity.</p> <p>Senior lab technicians in Liberia were trained in biosafety and biosecurity, produced standard operating procedures, and designed tools for internal biosafety and biosecurity audits.</p> <p>In India, 1,027 laboratory technicians from more than 159 laboratory facilities across primarily four states (Gujarat, Tamil Nadu, Jharkhand, and Madhya Pradesh) were trained in biorisk management and biosafety and biosecurity principles and applications.</p>   |
|  Immunization                 | Prevent death and illness due to vaccine-preventable diseases through robust national vaccine delivery systems                       | 6   | <p>Pakistan conducted house-to-house registration and outreach in 13 districts of Sindh province, increasing measles vaccine coverage from 27 percent at baseline to 52 percent.</p> <p>From June-August 2017, Ethiopia implemented a vaccination campaign in response to an emerging measles outbreak in the Somali region.</p>   |

## Progress on the Ground



13





Countries have enhanced surveillance systems for zoonotic diseases in humans, wildlife, and animals\*\*

15

Countries have trained staff on biosafety and biosecurity to prevent avoidable infection\*\*

\*U.S. Country Team assessments  
\*\*Data since GHSA launch

# DETECT

| Action Package   | Toward These Targets   | Number of Phase I Countries with Capacity-level Increase over Baseline* | Examples of Implementation that Benefited from U.S. GHSA Assistance  |
|--|--|---|--|
|  <b>National Laboratory System</b> | Detect and diagnose infectious diseases by building strong laboratory networks                                   | 8   | <p>Bangladesh now has laboratory capability to detect high-consequence pathogens, including anthrax, Crimean-Congo hemorrhagic fever, Nipah virus, and leptospirosis.</p> <p>In Uganda, more than 20,000 pediatric admissions at six electronically-linked, sentinel hospitals were evaluated using enhanced laboratory capacity, including blood culture and antimicrobial sensitivity testing, resulting in the timely identification and treatment of bloodstream infections.</p> <p>Sixty-eight veterinary labs in 21 GHSA Phase I and II countries completed comprehensive assessments that included infrastructure, range of diagnostics, quality assurance, and networking.</p>                     |
|  <b>Real-time Surveillance</b>     | Detect and assess outbreaks in real time using high-quality data from robust surveillance networks               | 10  | <p>In Sierra Leone, timeliness and completeness of surveillance data reports reached almost 100 percent of health facilities in 2017, and data quality assessments documented a 14 percent increase in districts submitting high-quality data. In addition, Sierra Leone piloted a tool to conduct a comprehensive baseline evaluation of its national animal health surveillance system.</p> <p>Vietnam piloted event-based surveillance with community engagement in detecting and reporting unusual health events and more than 100 local outbreaks were reported in the first six months as a result. This initial success led to a plan for national scale-up in 2018.</p>                            |
|  <b>Reporting</b>                 | Minimize the impact of health events through increased access to timely and accurate information about outbreaks | 7   | <p>Guinea built capacity to identify emerging health threats with a new electronic information system, <i>Epi-Detecte</i>. Priority diseases were added to the system for rapid notification of epidemic-prone disease alerts.</p> <p>In Senegal, the DHIS-2 electronic health surveillance platform is available to all 75 Health Districts, allowing regular reporting of routine and priority diseases to the national level.</p> <p>In Vietnam, an electronic surveillance platform is now functional for 44 communicable diseases and syndromes in all 63 provinces and 711 districts, allowing real-time reporting and information sharing between the clinical and preventive medicine sectors.</p> |
|  <b>Workforce Development</b>    | Prevent, detect, and respond to infectious disease outbreaks using a trained public health workforce             | 10  | <p>For January–September 2017, across GHSA countries, there were more than 640 graduates from Field Epidemiology Training Program (FETP)-Frontline and more than 80 graduates from FETP-Advanced. During this same time, FETP-Advanced graduates investigated more than 290 outbreaks.</p> <p>Since 2015, across 79 universities in Africa and Asia, more than 11,500 professionals were trained in “One Health” competencies, including zoonotic diseases and communications since 2015.</p>  |

## Progress on the Ground



# 16

Countries have detected dangerous pathogens using new equipment and capabilities\*\*

# 17

Countries have established or expanded the training of field-based epidemiologists and surveillance officers\*\*




# 11

Countries improved reporting timeliness and/or geographic coverage to capture public health threats\*\*

\*U.S. Country Team assessments

\*\*Data since GHSA launch

# RESPOND

| Action Package   | Toward These Targets   | Number of Phase I Countries with Capacity-level Increase over Baseline* | Examples of Implementation that Benefited from U.S. GHSA Assistance  |
|--|--|---|--|
|  <b>Emergency Operations Centers (EOCs)</b>              | Reduce the impact of public health threats by developing an interconnected global network of EOCs  | 11  | <p>Cameroon has demonstrated strong emergency management capability, including through a government-led, full-scale cholera response exercise, and through rapid activation of its EOC for emergency response, including activation within 24 hours to respond to a meningitis outbreak.</p> <p>Bangladesh made significant improvements to its emergency management operations, including the first time activation of its EOC in response to a large Chikungunya outbreak in Dhaka in summer 2017.</p> |
|  <b>Multisectoral Rapid Response</b>                     | Integrate law enforcement into emergency planning and response to maintain civic order and security across borders in case of outbreaks    | 4   | <p>In Liberia, public health and security authorities worked together to address several public health emergencies, including a meningitis outbreak and inspections of drinking water quality.</p> <p>In Tanzania, government officials from the transportation and health sectors developed an IHR (2005)-compliant public health emergency response plan for points of entry (airports).</p>   |
|  <b>Medical Countermeasures and Personnel Deployment</b> | Lessen the impact of disease outbreaks through systems that deliver the right medicines and personnel to the right place at the right time | 2   | <p>Standard operating procedures for sending and receiving non-medical emergency outbreak supplies were developed and will be pre-tested in Cameroon.</p> <p>U.S.-supported stockpiles provided 2,000 personal protective equipment (PPE) kits to the Democratic Republic of Congo (to support an Ebola outbreak response), 300 PPE kits to Uganda (to respond to avian influenza), and 100 PPE kits to Guinea (to respond to anthrax).</p>  |

## Progress on the Ground



# 16

Countries have established or strengthened their national EOCs to manage and monitor health events in real time\*\*

# 13

Countries strengthened response coordination and shared information across public health, animal health, and law enforcement\*\*

# 10

Countries improved logistics planning to deploy staff, medicines, and supplies during a public health emergency\*\*

\*U.S. Country Team assessments

\*\*Data since GHSA launch

## Evidence of GHSA Impact in 2017

U.S. support to GHSA countries has helped to prevent or curtail the spread of infectious disease outbreaks. In 2017, there were more than 25 reported public health emergencies in U.S.-assisted GHSA countries, defined by the WHO Emergency Response Framework (2017) as a public health event that exceeds the ability of the country to respond. The causes of these emergencies included outbreaks of Marburg virus, Ebola virus, dengue fever, and acute watery diarrhea/ cholera. The majority of these events occurred in Africa and caused significant morbidity, mortality, and economic loss. Many countries faced multiple outbreaks throughout the year. For example, in 2017, the Democratic Republic of Congo (DRC) dealt with a range of outbreaks and events, including Ebola, cholera, avian influenza, and vaccine-derived polio.

With few exceptions, partner countries led the responses to these outbreaks by using the improved capacities built with the help of GHSA, the United States, and other partners.

### *Early Detection of Serious Infectious Diseases and Effective Responses to Outbreaks*

#### GRADED EMERGENCIES IN U.S. ASSISTED GHSA COUNTRIES

**Acute Watery Diarrhea in Ethiopia (August 2017) – Grade 3 Protracted Emergency:** The Ethiopian Public Health Institute activated the country's public health emergency operations center (PHEOC) for the first time to respond to an outbreak of acute watery diarrhea in multiple regions of Ethiopia. U.S.-supported workforce training programs helped prepare the country to manage the outbreak, as Ethiopia appointed a Field Epidemiology Training Program (FETP) graduate to lead the response. The United States assisted the Ethiopian Public Health Institute to establish an incident management system, deploy rapid response teams, and develop processes for task tracking and situational reporting. In addition, the United States supported hygiene-promotion activities, the provision of water treatment supplies, and other water and sanitation

activities to prevent future acute watery diarrhea transmission in much of the affected areas.

**Dengue Fever in Burkina Faso (September 2017, ongoing) – Grade 1 Emergency:** Burkina Faso, in collaboration with the United States, the WHO, the FAO, and other partners, helped to stem a large outbreak of dengue fever, a priority zoonotic disease for the country. Over a two-month period, Burkina Faso reported more than 14,000 probable human dengue cases and 29 deaths. With U.S. support, Burkina Faso enhanced in-country capacity to diagnose dengue at the national reference lab, including the identification of serotypes, and established surveillance for dengue and other arboviral diseases in Ouagadougou, which builds upon an existing surveillance system.

**Marburg Virus in Uganda (October 2017) – Grade 2 Emergency:** The U.S.-assisted viral hemorrhagic fever laboratory at the Uganda Virus Research Institute confirmed a positive case of Marburg from a sample obtained from eastern Uganda. There were three reported cases (two confirmed and one probable), all of which were fatal. The Ministry of Health quickly deployed a rapid response team, which included staff trained through the U.S.-supported FETP and the Uganda Virus Research Institute viral hemorrhagic fever program, and students from the U.S.-supported Makerere University One Health Innovation Club, to the affected districts. The team rapidly traced the contacts of suspected cases and conducted community education activities. No further cases were identified, and there was no spread into Kenya even though one suspected case had traveled across the border.

#### EXAMPLES OF OTHER EMERGENCIES IN U.S. ASSISTED GHSA COUNTRIES

**Avian Influenza A(H5N8) in Birds in Uganda (January 2017):** A possible influenza pandemic caused by a mutating virus that jumps from animals to humans remains a critical threat to global health security. The Uganda Wildlife Education Center reported a massive die-off of approximately 10,000 migratory birds and

Within the WHO Emergency Response Framework, Grade 3 emergencies require a major international response; Grade 2 emergencies require a moderate international response; and Grade 1 emergencies require a limited international response. A protracted emergency is one that persists longer than six months. Ungraded emergencies are serious events that often involve large numbers of people and substantial multi-sectoral assistance but do not require an operational response by WHO.

domestic birds on the shores of Lake Victoria to the Ugandan PHEOC, which activated rapidly, along with the multi-sectoral National Taskforce for Epidemics. Building upon the successes of long-term U.S. Government support for influenza surveillance and response in Uganda, national and district multi-sectoral rapid response teams, including FETP Advanced Fellows and veterinary and public health students from the Makerere University One Health program, conducted outbreak investigations. U.S. funding and technical assistance to the Uganda Virus Research Institute facilitated the initial diagnostic confirmation of the first highly pathogenic avian influenza outbreak in East Africa. Enhanced surveillance in avian populations is ongoing with no suspected human cases to date.

#### **Avian Influenza in Bangladesh (January 2017):**

Benefitting from U.S.-funded training activities on health security, the staff of the Bangladesh Department of Livestock Services detected multiple outbreaks of avian influenza for the first time in backyard poultry, which marked the first reported and investigated outbreaks of highly pathogenic avian influenza in Bangladesh in two years. U.S. technical assistance helped Bangladeshi professionals to investigate the crow die-offs (which were linked to the poultry outbreaks); the sampling of the crows and other wild birds near live bird markets to permit laboratory testing; and train field staff from the Forest Department (Wildlife Authority). In addition, the United States provided technical support to the Bangladesh Livestock Research Institute, which tested and confirmed H5-type influenza virus in the crows by using specific laboratory assays.

#### **Preventing a Measles Outbreak in Cote d'Ivoire**

**(February 2017):** After a measles outbreak in neighboring Guinea, staff from the Cote d'Ivoire Ministry of Health coordinated with counterparts from Guinea and Liberia with the goal of preventing the outbreak from crossing borders. Subsequently, with the help of the United States, the Ivorian Government conducted measles sensitization and vaccination campaigns at six points of entry. Community sensitization committees continued to conduct risk communication campaigns and work with health centers to identify and vaccinate unvaccinated children. As a result, Cote d'Ivoire prevented a measles outbreak in the at-risk areas.

#### **Meningococcal Disease in Liberia (April 2017):**

Liberia reported 14 cases, and eight deaths, from an unidentified illness. The country quickly mobilized 14 U.S.-trained Liberian disease detectives, activated the new national PHEOC, and deployed a national rapid response team. Local laboratory testing ruled out Ebola within 24 hours, and CDC laboratories in the United States confirmed the cause as meningococcal disease, a deadly bacterial illness; CDC laboratories also provided reagents to Liberia for further testing. Rapid and coordinated response interventions, such as contact-tracing, limited the outbreak to 31 cases and 13 deaths.

**Ebola in DRC (May 2017):** A cluster of undiagnosed illnesses and deaths with hemorrhagic symptoms was identified in the remote Likati Health Zone in northern DRC. Two days later, DRC laboratory workers confirmed the outbreak as Ebola. Laboratory confirmation of this pathogen by a DRC scientist in the country's national laboratory is a positive public health milestone for the country. A group of disease detectives, trained in DRC through U.S.-funded programs, immediately deployed to trace potentially exposed contacts and to provide technical support. The United States supported the outbreak response through the deployment of field epidemiologists, a mobile laboratory, and the provision of laboratory reagents and PPE. Fast and coordinated action contained the Ebola outbreak in an isolated area of DRC to only eight cases, four deaths, and no spread outside of the area.

#### **Crimean Congo Hemorrhagic Fever in Uganda**

**(August 2017):** The Uganda districts of Kyankwanzi and Nakaseke experienced an outbreak of Crimean Congo hemorrhagic fever. The outbreak posed serious health and economic implications because this zoonotic disease is a major threat to livestock, and these districts are major cattle-rearing areas. Early detection and the launch of control activities by rapid-response teams in less than 48 hours limited the outbreak to two confirmed cases. The Ministry of Health worked with the WHO and the United States to establish a district-level task force, set up isolation wards, conduct environmental testing, educate the community, and train health workers on the treatment and prevention of Crimean Congo hemorrhagic fever. With U.S. support, other GHSA countries have also strengthened diagnostic capacity for Crimean Congo hemorrhagic fever, including India, which diagnosed cases in two states, and identified evidence of livestock infections in multiple states.

## Examples of Innovative Programming

### **The Frontline FETP Trains Disease Detectives:**

For more than three decades, CDC has worked with ministries of health and other partners around the world to build local capacities and strengthen the national public health workforce through programs like the FETP. To expand workforce capabilities at the local level, CDC launched FETP-Frontline in 2015, a three-month training program focused on detecting and responding to diseases and events of public health importance or international concern. FETP-Frontline participants include government public health workers in charge of the collection, compilation, analysis, and reporting of surveillance data, and response activities at the local level of a health system. Within 24 months, FETP-Frontline launched programs in 30 countries, including 15 U.S.-funded GHSA Phase I countries (including countries that launched a version of FETP-Frontline prior to 2015). More than 3,500 trainees had graduated from FETP-Frontline Programs by December 2017. FETP-Frontline trainees and graduates have actively participated in responses to outbreaks of cholera, measles, yellow fever, and other diseases, by identifying suspected outbreaks early and raising standards for quality investigations.

**One Health Workforces Link Animal and Human Health Sectors:** In 79 universities in Africa and Asia, USAID-financed One Health University Networks have developed more than 22 training modules in One Health competencies, including zoonotic diseases; infectious disease management; biorisk and biosecurity; behavior change communication; and linkages between animal and human health. These universities created 34 One Health student innovation clubs, and established 23 demonstration sites to promote field-based learning in nine countries. Students and faculty participated in 10 outbreak responses and investigations in Ethiopia and Uganda. In addition, more than 50 people were placed in local and international health organizations to gain practical experience in applying a One Health approach.

**USDA Training Programs Leverage Academia to Enhance Animal Health Workforce:** USDA worked with Iowa State and Michigan State Universities to support the participation of 16 educators from Africa in the USDA Faculty-Exchange Program for African Veterinary Science to help improve veterinary curricula and instruction

at the participants' universities. USDA collaborated with academic partners at the Iowa Department of Agriculture, Iowa State University, and other partners to deliver training on animal health and food safety risk assessment for the Chief Veterinary Officer of St. Vincent and the Grenadines. Through the USDA Norman E. Borlaug International Agricultural Science Fellowship Program, a scientist from the Uganda Ministry of Health received training at Kansas State University on epidemiological investigation of Rift Valley fever to help improve Uganda's capacity to detect and control Rift Valley fever outbreaks in animals rapidly and reduce risks of Rift Valley fever transmission to people.

**PREDICT Detects Emerging Threats:** Through the PREDICT project, USAID supports the most comprehensive effort to date to strengthen capacities for the improved detection, identification, and characterization of priority zoonotic diseases and spillover risk for emerging threats in the world's most-vulnerable hotspots for emerging diseases. In 12 African countries, the PREDICT project, working primarily through local laboratories, has tested samples from 4,623 animals and 451 humans for high-priority viral families, such as corona-, filo-, flavi-, influenza-, and paramyxoviruses, associated with high-consequence outbreaks such as Ebola, Marburg, influenza, and Middle East Respiratory Syndrome coronavirus. The PREDICT project identified nine new viruses now being studied further to determine the risk posed to humans. In addition, PREDICT conducted in-depth behavioral interviews with more than 1,400 individuals to help identify the enabling behaviors and practices associated with transmission of priority zoonotic diseases and other emerging threats.

**The Public Health Emergency Management Fellowship Trains Emergency Managers:** CDC established the Public Health Emergency Management (PHEM) Fellowship in response to increased demand for assistance from countries that are seeking to strengthen their PHEM capacity. During the four-month program, PHEM Fellows receive advanced training in all major functional areas of emergency management. PHEM Fellowship participation has directly affected countries' ability to reduce the time between the notification of an emergency and activation of the national PHEOC.





After completion of the program, PHEM Fellow alumni have been promoted into roles such as PHEOC Manager in Cote d'Ivoire, PHEOC Operations Chief in Senegal, Incident Manager for an avian influenza outbreak in Cameroon, Ebola-Response Manager in DRC, and other PHEM functional area positions. As of December 2017, 69 fellows have graduated from 28 countries.

#### **One Health Zoonotic Disease Prioritization**

**Identifies Zoonotic Threats:** CDC's One Health Zoonotic Disease Prioritization Tool brings together multi-sectoral stakeholders from human health, animal health, environmental health, and other relevant sectors to address zoonotic disease prevention and control in a country. In fiscal year 2017, 10 workshops were conducted in GHSA countries; nine were led by CDC and supported by USAID, through operational assistance and the convening of national One Health platforms and multi-sectoral partners. CDC, USDA, and DoD collaborated on a similar workshop in Pakistan. Having a jointly developed list of priority

zoonotic diseases enables a country to focus limited financial and human resources to build laboratory capacity, strengthen surveillance in humans and animals, develop joint outbreak response teams and preparedness plans, and to create collaborative prevention and control strategies. Commonly prioritized zoonotic diseases included rabies; zoonotic influenza viruses; viral hemorrhagic fevers, such as Ebola virus and Rift Valley fever; brucellosis; and anthrax.

#### **One Health Coordination Supports Whole-Of-**

**Government Action:** USAID has assisted 12 GHSA countries to develop or strengthen national One Health working groups by using a multi-sectoral approach for coordination. National groups were launched this year in Guinea, Liberia, Sierra Leone, and Uganda. One Health groups coordinate across ministries to improve preparedness and incident management and have helped respond to infectious disease threats, including recent avian influenza outbreaks in Bangladesh and Uganda, anthrax in Tanzania, meningococcal disease



in Liberia, and Marburg in Uganda. One Health groups in Bangladesh, Indonesia, Cameroon, Kenya, and Uganda have incorporated public health threats beyond emerging infectious diseases, such as antimicrobial resistance, into their preparedness planning.

#### **Event-based Surveillance Systems Detect Unusual Events:**

CDC has spearheaded efforts to enhance Event-based Surveillance Systems (EBS) in U.S.-supported GHSA countries. For example, the EBS pilot platform in Vietnam trained nearly 9,000 public health workers and reported 4,323 potential events, 317 of which required a public health response. In 2018, the Vietnam Ministry of Health is preparing to integrate EBS into its national surveillance system and launch it across the entire country. In Burkina Faso, a community-based EBS system to detect and report unusual health events of potential public health importance is being piloted in three districts. Launched in August 2017, the pilot has trained approximately 1,200 community health workers and approximately 200 nurses and staff at local health posts in EBS protocols. These health workers have notified, investigated, and controlled eight confirmed public health threats since August 2017.

#### **The Cooperative Biological Engagement Program Partners with Tanzania to Stop the Spread of Anthrax:**

In November 2016, a massive die-off of animals was reported in northern Tanzania, resulting in more than 130 deaths in wild and domestic animals and reports of human cases of skin lesions consistent with anthrax infection. Investigation teams collected samples and performed diagnostic testing. The teams attributed the sudden increase in animal deaths to *Bacillus anthracis* (anthrax) infections. To prevent this outbreak from spreading further, a DoD Cooperative Biological Engagement Program (CBEP) project designed to investigate dangerous pathogens in bushmeat helped to coordinate anthrax outbreak detection and response activities on behalf of the Tanzania Wildlife Research Institute. CBEP provided personal protective and diagnostic equipment and assisted with community education programs, which cautioned against consumption of bushmeat and the harvesting of animal products. The team also worked with local and central government administrators on how the laboratory at the Nelson Mandela African Institute for Science and Technology could effectively participate as a reference laboratory, providing safe and secure diagnostic work during this and future outbreaks. As a result of the collaboration, this imminent

disease threat was prevented from spreading further; capabilities were established to detect future cases of anthrax accurately, quickly, and safely, whether naturally occurring or intentionally spread; and best practices were instilled for safe and secure handling of *B. anthracis*.

#### **Advanced Molecular Detection for Faster Detection of Threats to Public Health:**

Detecting and responding to public health threats relies on a robust laboratory system capable of identifying known, unknown, or newly evolving pathogens. CDC supports laboratory capacity-building under GHSA through the provision of quality-assured reagents; external quality assurance panels; hands-on laboratory trainings; and remote assistance for the testing of viral pathogens that cause measles, gastrointestinal diseases, respiratory diseases, and other priority pathogens. In addition, CDC continues to improve Advanced Molecular Detection (AMD) capabilities in select GHSA countries. AMD technology enables faster detection of novel or emerging organisms.

#### **Joint West Africa Research Group Improves**

**Biopreparedness:** Joint West Africa Research Group (JWARG) is a DoD-funded, collaborative initiative that leverages existing research platforms and relationships to improve biopreparedness by strengthening research capabilities in the region. In 2017, JWARG's first clinical study on sepsis enrolled nearly 200 severely ill patients in Ghana and will help increase global understanding of diseases causing severe illness, lead to identification of biomarkers to diagnose sepsis, predict course of illness, diagnose pathogens, and inform clinicians to provide more-personalized treatment of sepsis patients. In September 2017, JWARG began another study designed to identify and characterize cases of suspected severe infectious disease at medical centers in West Africa, which will help identify new threats early and assist in developing and implementing well-informed responses.

#### **DoD Develops a Rapid Response Capability for Medical Countermeasure Development and**

**Deployment:** The Joint Mobile Emerging Disease Intervention Clinical Capability (JMEDICC) team brings technical experts from the DoD together with Ugandan stakeholders at all levels to conduct clinical research that supports development of medical countermeasures (MCM) and provides critical capacity to outbreak response efforts. In October 2017, Uganda declared an outbreak of Marburg. By request of the Ministry of Health, the JMEDICC team members provided technical assistance to the Uganda National Task Force and

Rapid-Response Teams, both in the PHEOC and in affected areas.

**FAO Helps Respond to Outbreaks of Avian Influenza across GHSA Countries:**

Since the launch of GHSA in 2014, 16 U.S. partner countries in sub-Saharan Africa and Asia have experienced more than 50 outbreaks of highly pathogenic avian influenza. USAID funding to FAO and other partners builds national capacity to detect and respond to these outbreaks through: provision of lab reagents and biological markers for viral characterization; outbreak investigation and response; the provision of commodities, such as personal protective equipment (PPE) for field and laboratory technicians; upgraded biosecurity in farms and markets; and improved coordination across sectors. Since 2015, FAO has provided more than 13,000 pieces of PPE to countries directly affected by highly pathogenic avian influenza and to neighboring countries. With USAID support through FAO, countries are reducing their response time. For example, since 2015, FAO has helped the government of Vietnam to reduce the duration between outbreak start and laboratory confirmation from 4.5 to about 3 days.

**Waste Management Helps Stop the Spread of Infectious Disease Outbreaks:**

Waste management was a major problem during the Ebola outbreak in West Africa. In response, CDC is working with its partners to design an innovative medical waste disposal unit that will effectively treat medical waste produced at community health centers in low-resource settings. The units are built with locally available materials, equipment, and labor at low cost, and detailed illustrated instructions will be freely available. A unit is currently undergoing pilot testing in Kenema, Sierra Leone.

**Strengthening Global Capacities for the International Deployment of MCM and Personnel:**

The Office of the Assistant Secretary of Health and Human Services for Preparedness and Response led

the Global Health Security Initiative MCM Task Force, in collaboration with the WHO, in finalizing the Operational Framework for Deployment of the WHO Smallpox Vaccine Emergency Stockpile. The WHO officially published the framework in December 2017.<sup>12</sup> This document describes procedures for requesting and deploying smallpox vaccines and ancillary supplies from the Smallpox Vaccine Emergency Stockpile in the event of a smallpox outbreak. It also serves as the basis for the development of general planning considerations for the international deployment of MCMs during public health emergencies, a tool to aid key stakeholders that could provide, or receive, emergency MCMs during public health and medical emergencies in building legal, regulatory, and logistical capacities and establishing plans for their deployment/receipt.

**State Biosecurity Engagement Program Trains Guinean Law Enforcement to Respond to Public Health Emergencies.**

Security and health are increasingly linked in our rapidly evolving world, and it is critical that we learn to collaborate rapidly and effectively. In order to further this objective, in March 2017, the State Department's Biosecurity Engagement program supported a multisectoral training workshop in Guinea focused on biosecurity and law enforcement response to public health emergencies. This event aimed to strengthen coordination and intervention capabilities between the Guinean police, civil protection, gendarme, and Guinean Ministry of Health at the national level to prevent and detect deliberate or naturally occurring infectious disease outbreaks. This training also helped ensure that in addition to medical first responders, unsuspecting first responders from non-health sectors with minimal exposure to public health response processes were trained on protecting themselves during these outbreaks. As such, participants were trained on PPE, personal decontamination, international biosecurity best-practices to prevent bioterrorism, and cross-agency communication efforts to respond to public health emergencies.

12. <http://www.who.int/csr/disease/icg/smallpox-vaccine-emergency-stockpile/en/>

# Amplifying Impact through Public Diplomacy and Engagement

Collaboration across the U.S. Government and with governmental, non-governmental, and private sector partners from around the world is critical to the success of the GHSA. This year, leaders from across the U.S. Government engaged in effective public diplomacy and active outreach in bilateral and multilateral meetings, as well as other international events to advance U.S. and broader GHSA objectives to build global health security capacity. The examples below highlight some of the effects of public diplomacy and how government and non-governmental engagement advanced global health security in 2017.

## **Non-governmental and Private-sector Partners Develop New Tools to Improve Global Health Security:**

Non-governmental stakeholders, through the GHSA Consortium (GHSAC), GHSA Private-Sector Roundtable (PSRT), and the Next Generation for Global Health Security Network (NextGen), are critical partners in building, maintaining, and sustaining international capacity. The private sector, NGOs, academic institutions, professional societies, and other institutions not only create and implement innovative solutions to combat infectious disease threats, but also provide the expertise needed for governments to fill critical gaps toward advancing compliance with the IHR (2005). In 2017, the GHSAC, PSRT, and NextGen all achieved successes in advancing global health security capacity. With a focus on the financing of health security capacity, a member of the GHSAC Steering Committee developed open-access online costing and tracking tools designed to help nations assess the financial costs of implementing health security activities from the JEEs and promote accountability in tracking global funding commitments. Through the PSRT, companies developed an online platform to display and analyze qualitative and quantitative data from countries' JEE reports, which GHSA stakeholders, including countries and donors, can use to visualize gaps in health security in need of prioritization and investment. This interactive tool also displays private sector products and services that could assist countries with solutions for the gaps identified in the JEEs. Also in 2017, the NextGen network provided technical expertise in WHO-led JEE missions and created two regional working groups of health professionals in East and West Africa, which created

opportunities to exchange knowledge across borders and to provide in-country support to local governments.

## **Biosafety and Biosecurity Action Package Takes the Spotlight:**

In 2017, the Bureau of International Security and Nonproliferation at the Department of State led the U.S. Secretariat for the Working Group on the biosafety and biosecurity Action Package. The group promotes activities, resources, and tools to advance targets related to biosafety and biosecurity, in addition to encouraging reduced collections of dangerous pathogens worldwide. Under U.S. leadership, the Secretariat supported the development of a JEE Qualitative Assessment, a fact sheet, and a strategic messaging document for the Action Package. The Secretariat also organized an Action Package meeting where countries shared recent successes, and the group began thinking creatively about how to ensure that biosafety and biosecurity remain a focus of the GHSA through 2024.



## Looking Forward

While we have made significant progress toward achieving the targets of the GHSA, there is still much work to do. As reflected in JEE reports, all countries still have progress to make across multiple technical areas. For example, surveillance and national laboratory systems, though improved, are still limited in scope in many countries. Animal health capacities are routinely weaker than corresponding ones for human health, and work on AMR on both the human and animal side is just gaining momentum. The United States looks forward to continuing to fulfill its commitment to the GHSA by building our own capacities and addressing the areas for improvement identified by our JEE, and helping our partners build the capacities necessary to prevent, detect, and respond to infectious disease threats.

At the October 2017 GHSA Ministerial Meeting in Uganda, 400 participants from more than 40 GHSA member countries declared their support in the “Kampala Declaration” to extend GHSA for an additional five years (through 2024). The extension of GHSA ensures the continuation of work to build capacity and strengthen health systems to protect the national security of all nations against infectious disease threats. The U.S. Government, as part of its role on the GHSA Steering Group, is leading a working group to formulate the GHSA multilateral initiative for the next phase to include a renewed focus on building country capacity, obtaining sustainable national financing of health security capacity, strengthening multi-sectoral collaboration and engagement, and increasing cooperation with the non-governmental sector.

GHSA has succeeded in making health security a global priority and accelerated progress across the animal-health, human-health, environmental, defense, and security sectors to advance implementation of the IHR (2005). The United States believes each country's ability to prevent, detect, and respond to infectious disease threats directly protects that country's own national security as well as that of the global community. An infectious disease outbreak anywhere can be a threat everywhere. In the 100 years since the 1918 influenza pandemic, we have made much progress in our ability to prevent, detect, and respond to disease threats: stronger surveillance systems; new and improved laboratory diagnostics, vaccines, and therapeutics; and increased global reporting of outbreaks and other public health threats. However, there is still work to do to prevent future outbreaks. We will continue to strive to achieve global compliance with the IHR (2005), the World Organization for Animal Health's Performance of Veterinary Services, the Biological Weapons Convention, and other relevant international frameworks and agreements through our GHSA commitments at home and abroad.



### THE KAMPALA DECLARATION ON THE GLOBAL HEALTH SECURITY AGENDA

We, the Ministers and Heads of Delegation of Participating Countries of the Global Health Security Agenda, assembled in Kampala, Uganda, October 25-27, 2017 to advance global health security, are hereby:

*Reaffirming* our vision of a world safe and secure from global health threats posed by infectious diseases, whether naturally occurring, deliberate, or accidental;

*Recognizing* that failure to control outbreaks costs lives and is far more expensive than prevention;

*Emphasizing* that it is our goal to protect our people, avoid loss of life, and sustain social-economic gains and stability;

*Commending* Participating Countries and our partners from around the world for achieving significant advances in developing sustained country-level health security capacity since the launch of the Global Health Security Agenda in 2014;

*Highlighting* the role that the Global Health Security Agenda has played in spurring joint and multi-sector actions by government and non-government partners to achieve many of these gains;

*Appreciating* the World Health Organization's leadership in supporting countries to build health security capacity and implement the International Health Regulations (2005);

*Noting* the contributions of the Global Health Security Agenda to the World Health Organization's efforts in improving monitoring and evaluation of International Health Regulations (2005) implementation and supporting countries to develop national plans; and

*Acknowledging* that significant work remains to fully achieve and sustain health security.

Therefore, we will continue our work to strengthen global health security, and declare our support for extending the Global Health Security Agenda until 2024 to accelerate the implementation of the International Health Regulations (2005).

Furthermore, to ensure a clear and common understanding of our joint way forward on the initiative, we request that the Global Health Security Agenda Steering Group develop, in consultation with all interested Participating Countries, advisors, and affiliated organizations, a detailed proposal describing the scope of work, specific aims, and any recommended improvements in GHSA processes and working methods for the next phase of the initiative to be presented at the Global Health Security Agenda high-level meeting to be held in 2018.

# Annex

| U.S. Government<br>Departments, Agencies,<br>and Offices  | Key Roles as defined by the Executive Order – Advancing the Global Health Security Agenda to Achieve a World Safe and Secure from Infectious Disease Threats (November 4, 2016):<br>In conjunction with the other relevant agencies, departments, and agencies will:  |
|---|---|
| <b>Executive Office staff<br/>(National Security<br/>Council, Office of Man-<br/>agement and Budget,<br/>and Office of Science<br/>and Technology Policy)</b> | <ul style="list-style-type: none"> <li>• Convene a GHSA Interagency Review Council (Council) to perform the responsibilities described in the Executive Order – Advancing the Global Health Security Agenda to Achieve a World Safe and Secure from Infectious Disease Threats.</li> <li>• Serve as chair of the Council as designated by the Assistant to the President for National Security Affairs, in coordination with the Assistant to the President for Homeland Security and Counterterrorism.</li> </ul>  |
| <b>Department of State</b>  | <ul style="list-style-type: none"> <li>• Engage Chiefs of Mission, country teams, and regional and functional bureaus within the Department of State to promote the GHSA with international partners and to facilitate country-level implementation of U.S. programmatic activities.</li> <li>• Monitor and evaluate progress toward achieving GHSA targets, determine where more work is needed, and work with agencies and international partners to identify the partners best placed to achieve the GHSA targets for countries the United States has made a commitment to assist.</li> <li>• Facilitate implementation and coordination of Department of State programs to further the GHSA.</li> <li>• Coordinate planning, implementation, and evaluation of GHSA activities with the U.S. Global Malaria Coordinator at the USAID, and the U.S. Global AIDS Coordinator at the Department of State in the countries the United States has made a commitment to assist.</li> <li>• Lead diplomatic outreach, including at senior levels, in conjunction with other relevant agencies, to build international support for the GHSA.</li> <li>• Work, in conjunction with other relevant agencies, with other donors and non-governmental implementers in partner countries in order to leverage commitments to advance the GHSA with partners.</li> <li>• Coordinate, in conjunction with other relevant agencies, the U.S. Government relationship with foreign and domestic GHSA non-governmental stakeholders, including the private sector, non-governmental organizations, and foundations, and develop, with consensus from the Council, an annual GHSA non-governmental outreach strategy.</li> </ul> |
| <b>USAID</b>  | <ul style="list-style-type: none"> <li>• Facilitate implementation and coordination of USAID programs to further the GHSA, as well as provide technical expertise to measure and evaluate progress in countries the United States has made a commitment to assist.</li> <li>• Provide, in conjunction with other agencies, strategic technical guidance for achieving GHSA targets.</li> <li>• Work, in conjunction with interagency partners and the in-country GHSA teams, with other donors and non-governmental GHSA implementers in partner countries in which USAID programs are active in order to coordinate and leverage commitments to advance the GHSA with partners.</li> </ul>   |
| <b>Department of Defense</b>  | <ul style="list-style-type: none"> <li>• Facilitate implementation and coordination of Department of Defense programs to further the GHSA, as well as provide technical expertise to measure and evaluate progress in countries the United States has made a commitment to assist.</li> <li>• Work, in conjunction with interagency partners and the in-country GHSA team, with other donors and non-governmental implementers in partner countries in which Department of Defense programs are active in order to coordinate and leverage commitments to advance the GHSA with partners.</li> <li>• Coordinate and communicate, in conjunction with other relevant agencies, with defense ministries with regard to the GHSA, including at the GHSA Ministerial and Steering Group.</li> </ul>   |

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|---|--|
| <b>Department of Health and Human Services</b>  | <ul style="list-style-type: none"> <li>• Represent, in conjunction with other relevant agencies, the United States at GHSA Ministerial and Steering Group meetings and in working with G7 and G20 Health Ministers on the GHSA, and coordinate U.S. Government support for those activities.</li> <li>• Provide overall leadership and coordination for the GHSA Action Packages, which consist of country commitments to advance and share best practices toward specific GHSA targets, including serving as the primary point of contact for the Action Packages, providing support to Action Package leaders, and tracking overall progress on the Action Packages.</li> <li>• Coordinate U.S. Government support for and participation in external evaluations, including the WHO JEE tool and the Alliance for Country Assessments for Global Health Security and IHR Implementation.</li> <li>• Represent, in conjunction with other relevant agencies, the United States in coordination and communication with the WHO regarding the GHSA.</li> <li>• Facilitate, no less than every 4 years, the request for an external assessment, such as the process outlined within the WHO JEE tool, of U.S. Government domestic efforts to implement the IHR and the GHSA and work to publish the assessment to the general public.</li> <li>• Consolidate and publish to the general public an external assessment of U.S. domestic capability to address infectious disease threats and implement the IHR, including the ability to achieve the targets outlined within the WHO JEE tool and including the gaps identified by such external assessment.</li> </ul> |
| <b>U.S. Centers for Disease Control and Prevention</b>  | <ul style="list-style-type: none"> <li>• Facilitate implementation and coordination of U.S. Centers for Disease Control and Prevention programs to further the GHSA, as well as provide technical expertise to measure and evaluate progress in countries the United States has made a commitment to assist.</li> <li>• Provide, in conjunction with other agencies, strategic technical guidance for achieving GHSA targets.</li> <li>• Provide, in coordination with the Department of Health and Human Services, strategic technical support for and participate in external assessments, including the WHO JEE tool, and the Alliance for Country Assessments for Global Health Security and IHR implementation. Work, in conjunction with interagency partners and the in-country GHSA team, with other donors and non-governmental implementers in partner countries in which the U.S. Centers for Disease Control and Prevention programs are active in order to coordinate and leverage commitments to advance the GHSA with partners.</li> </ul>  |
| <b>Department of Justice, Attorney General acting through the Federal Bureau of Investigation</b> | <ul style="list-style-type: none"> <li>• Serve, in conjunction with other relevant agencies, as the U.S. Government lead for GHSA targets relating to linking public health and law enforcement, and coordinate with INTERPOL on the GHSA and its successful implementation.</li> <li>• Facilitate implementation and coordination of FBI programs to further the GHSA, as well as provide technical expertise to measure and evaluate progress in countries the United States has made a commitment to assist.</li> <li>• Work, in conjunction with interagency partners and the in-country GHSA team, with other donors and non-governmental implementers in partner countries in which FBI programs are active in order to coordinate and leverage commitments to advance the GHSA with partners.</li> </ul>  |
| <b>Department of Agriculture</b>  | <ul style="list-style-type: none"> <li>• Represent, in conjunction with other relevant agencies, the United States in coordination and communication with the FAO and OIE with regard to the GHSA.</li> <li>• Facilitate implementation and coordination of Department of Agriculture programs to further the GHSA, as well as provide technical expertise to measure and evaluate progress in countries the United States has made a commitment to assist.</li> <li>• Work, in conjunction with interagency partners and the in-country GHSA team, with other donors, contributing international organizations, and non-governmental implementers in partner countries in which Department of Agriculture programs are active in order to coordinate and leverage commitments to advance the GHSA with partners.</li> </ul>   |
| <b>Department of Homeland Security</b>  | <ul style="list-style-type: none"> <li>• Assess the impacts of global health threats on homeland security operations.</li> <li>• Lead, in conjunction with the Secretary of Health and Human Services, the Secretary of State, and the Secretary of Agriculture, U.S. Government GHSA activities related to global health threats at U.S. borders and ports of entry.</li> </ul>   |



